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# The Mediatory Effect of Self-Efficacy on the Relationship between Religious Values and Entrepreneurial Orientations: A Case of Malay Owner Managers of SMEs in Manufacturing Industry

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## Abstract

This study determines the mediating role of self-efficacy on the relationship between personal values and entrepreneurial orientations. This study comprised sample of 162 small scale Malay SMEs in manufacturing industry, from the whole states of Malaysia. Rasch Measurement Model was used for the purpose of construct reliability and validity. SPSS was used for a hierarchical analysis to find the mediating role of SE. The findings indicate that self-efficacy of the Malay owner managers acted as full mediating role in the relationship between personal values and entrepreneurial orientation. Malay owner managers were found to have high self efficacy and they are entrepreneurial. An important implication of this research is that the interesting findings give some insight to management consultants to focus on improving self-efficacy of the Malay owner managers, in their training module, as that could influence owner managers to be more entrepreneurial.

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**Keywords:** Self-efficacy; Malay SMEs; religious values; entrepreneurial orientation

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## 1. Introduction

Literature on personal values and entrepreneurial orientations were many, however research on religious values and entrepreneurial orientations were limited. Literature also indicates that personal values of

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individualism and achievement have some impact on entrepreneurial orientation of entrepreneurs. However, Japanese and Korean, even though collectivists, they are also entrepreneurial. It is believed that the Samurai values of Bushido would have given some impact on their entrepreneurialism. Islamic values, which have similarity with Bushido in terms of the domain, were also believed to give impact on entrepreneurship but these values were not widely researched. Therefore, this study is to fill this gap. Research on personal values-entrepreneurial orientations relationship has been given emphasis because research scholars in entrepreneurship area can see the positive impact of entrepreneurial orientation on performance. The literature indicates that there are numerous studies (Dess et al., 1997; Lumpkin & Dess, 1996; Zahra, 1996; Reichheld, 2006) conducted on the relationship between EO and performance and this relationship was found to be consistently significant. However, what drives business owners to choose among entrepreneurial orientations is not well researched. Personal values and internal motivation are among personal characteristics that are found in the literature to give impact on EO (Baum & Locke, 2004; Shane et al., 2003; Chen et al., 1998). However, these two personal variables were studied in isolation, that how these two interact to influence entrepreneurial orientation are not fully understood yet. For that reason, the second purpose of this paper is to discuss how these two important variables of personal characteristics interact to influence entrepreneurial orientations.

Specifically, this paper is hoped to reach these following objectives:

- To determine the relationship between religious values and entrepreneurial orientations
- To examine the mediating role of self-efficacy in the relationship between personal values (religious values) and entrepreneurial orientations.

## 2. Literature Review

Entrepreneurial orientations are found by literature to affect performance positively. But what drive SME owners to choose among entrepreneurial orientations are not fully understood as there are not enough studies conducted to explain this relationship. Among the few studies to explain this relationship can be found in the studies of Boyd and Vozikis (1994), and Baum et al. (2004). These research scholars basically agree that self-efficacy is important to explain entrepreneurial success. There are two important theories that help explain the relationships between these variables. The following are literature on how two important theories help explain the relationships between each variable and help develop the theoretical framework for this study.

In order to investigate the relationships between the variables exhibited in the research framework, two underpinning theories which are well rooted (Schwartz, 1992; Bandura, 1989) in literature are utilized. The theory of human values (THV) and the theory of self efficacy (TSE) are the two underpinning theories that help explain the formulation of the theoretical framework. The following is the explanation of how these two theories supported the framework.

### 2.1. *Theory of Human Value and The Theory of Self-efficacy*

The theory of human values and the theory of self-efficacy are from two distinct schools of thought in the field of entrepreneurial psychology. The more traditional group of researchers has focused on the personal characteristics of the individual such as: personal values and behaviors (theory of human values). The second group of researchers has taken a social cognitive approach, looking at the relationship between an individual and his or her environment (Bandura's Social Cognitive Theory). The traditional Theory of Human Values assumes that the way people act or behave represent their sets of values as these values are beliefs on what is right and what is wrong to do. The Social Cognitive Theory believed that behaviors result from the interaction between one's motivation and things that happen around them (i.e., the environment). The combination of these two theories helps explain why people with certain values are motivated to be entrepreneurial within a given business environment. For that reason, the research framework of the present study is derived from the combination of these two theories with supports from the literature reviews about entrepreneurship and psychology. The Theory of Human Values (Schwartz, 1992) posits that human values influence behavior as values guide decisions and actions to some extent. Values were viewed as anchors that stabilize behavior and keep people moving collectively in the same direction. However, these values will not be translated into behaviors if there is no

internal drive to force someone to choose among behaviors. The Theory of Human Values and Theory of Self-efficacy show the connection between personal values and self-efficacy to influence behaviors. Even though the connection between personal values and self-efficacy are not explained in both theories, but the link between these two variables is important to be included. This was proven by Elizur and Shye (1994) about the significant link between these two variables.

In Schwartz's definition of values, motivation seems to be considered as part of values, whereas values and motivation are proven by Elizur and Shye (1994) to be related but they fall in different facets. Furthermore, these two variables were mentioned many times in the literature (please see Section 2.6.2. and Section 2.6.3) to have their influence on behavior. Bandura only discussed the cognitive process, what a person thinks about his or her ability and his or her level of confidence, and how he or she perceives environment having effect on his or her behavior. Interestingly, how a person believes on what should be done somehow was not discussed in his theory, whereas what and how people perceive are so much influenced by what they believe (personal values) as has been mentioned in the theory of human values. Therefore, this gap remained to be scrutinized which this study would attempt to explore.

Based on the above two theories, the theoretical framework suggested relationships that could be described by this assumption that: values influence behavior. For someone to choose which behavior there is a cognitive process involved. Thus, how he or she thinks cognitively was influenced by what values he or she holds. How can we separate values and motivation when these two are important factors of behaviors? What more when both variables were suggested by these two theories to play influential role in determining an individual's choice, level of effort and perseverance. If we relate these to owners of SMEs, those who decide to be involved in business and have been in the business for several years, they must have certain values that influence them to choose to be in business. These values will influence the way they process information receive from the environment and the way they think and relate to things around them. The integration of values and self-efficacy in a new framework is hoped to provide better explanation on SMEs owner managers' behavior. Moreover, the knowledge about the relationship among personal values of entrepreneurs or business owners, their internal motivation, and their entrepreneurial orientations is still fragmented, and that almost no research to date has produced a coherent theory. This study hopes to develop a model of entrepreneurship that is more comprehensive, exclusively to small scale entrepreneurs.

The discussions have demonstrated that the theory of self-efficacy and the theory of human values provide clear guidelines for the present study to draw some paths to follow through.

## *2.2. Religious values and entrepreneurial orientation*

Despite the many stimulating works of personal values construct, yet few organizational scholars presently writing about values attempt to enumerate and operationally define specific value dimensions relevant for today's businesses. The few prominent values taxonomies used in 1990s identified by McDonald and Gandz (1991) are England, Rokeach, Hofstede, Schwartz and Triandis. However, these dimensions were all developed in the social psychology and sociology literature done quite some time ago. Among those dimensions developed by the mentioned scholars, I-C values constructs received more acceptance and largely responsible for the explosion of cross-cultural psychology over the past decade, and continued to be the most prominent construct in the 1990s, making them perhaps the most important dimension in terms of cultural differences in social behavior (Vandello and Cohen, 1999).

Other personal values dimensions that are also important but received less attention by research scholars are Bushido values dimensions. These values consist of eight important values of Samurais; courage or bravery, honor, discipline, hard work, sincerity, benevolence, justice and loyalty. However only five values of Bushido: courage, loyalty, honor, hard work and discipline are considered relevant to business owners to be upheld (Junid, 2010) and they were seen to be upheld by the Japanese SMEs, Chinese and Koreans. In a recent working paper presented by Junid (2010), the author believed that those mentioned five Bushido values are important personal values that need to be adopted by Malay owner managers of SMEs. These values, labeled as 'Hwarang' in Korean, were once upheld by the Japanese Samurais (Zaibatsu Mitsubishi, Mitsui, Marubeni, Sumitomo and Dai Ichi Kangyo) whom were known as founders of change. They led these companies which uphold the Bushido

values, since 1873 (five years after Meiji Restoration).

These values are also taught in the Islam teachings. Muslims who are committed to Islamic teachings uphold the values and portray the virtues in their behaviors. Malay-owner managers of SMEs whom majority is Muslim should uphold the values and adopt them in their business practices. As stated by Junid (2010) the rise of Islam during the Dark Age of the West is also related to these five values which are known as 'Muru'ah' values in Islam which literally means 'manliness'. Every leader of Quraish who led Muslims at that time asked the Muslims to uphold and practice the 5 values. The same values were also given priority by the Sultan of Aceh in 1507 when he delivered his will which is called "the Aceh Code" (Junid, 2010). However, these values were only held strongly if the Islamic teachings are kept strongly as their faith. If their commitment on Islamic teachings is strong, the values become important to them in guiding their life. Thus, it is expected that the behavior produced by Muslims will depend on how strong they hold the Islamic values (or bushido values). The stronger an owner manager holds the Islamic values, the more entrepreneurial they become. For that reason, the present study will employ the five values of Islamic values: courage, honor, discipline, loyalty and hard work.

### 2.3. The mediation effect of self-efficacy

With regards to the studies on the mediating effect of internal motivation, very few studies demonstrated the significant role of internal motivation in mediating personal values and entrepreneurial orientation relationship. One of the few studies on mediating role of self efficacy is found to be conducted by Boyd and Vosikis (1994) and Zhao et al. (2005). Boyd and Vosikis (1994) extend Bird's 1988 model of entrepreneurial intention, found that self efficacy to be an important mediator in determining both strength of entrepreneurial intentions and the likelihood that those intentions would result in entrepreneurial actions. Rauch and Frese (2007) believed that in starting a new business, self-efficacy is a crucial factor in increasing the likelihood of business start-up activity.

However, in the study of Zhao et al. (2005), self efficacy was found to mediate the relationship between perceived learning from experiences and courses and entrepreneurial intentions. Another is the study of Baum and Locke (2004) who showed that motivation mediates personality-success relationship, and of Shane et al. (2003) who provided evidence for self efficacy to mediate the relationship between personal characteristics and entrepreneurial orientation. The mediating role of self-efficacy appears to be rarely studied and therefore too little literature to summarize the mediating effects of self-efficacy on personal values-entrepreneurial orientation relationship. Therefore, the present study fills this gap.

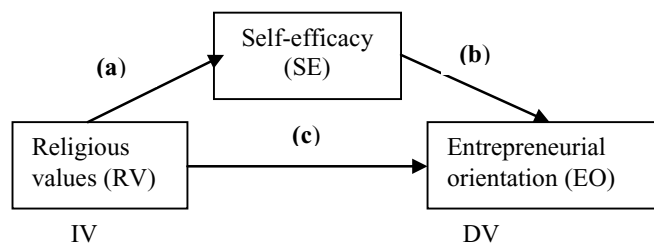


Figure 1: The conceptual framework of this research

In this framework, the religious values (RV) is independent variable and entrepreneurial orientation (EO) is the dependent variable. Further, we believe that this relationship is mediated by self efficacy (SE). The model suggests that there is a strong impact of self-efficacy in determining entrepreneurial orientations. Religious values are important to affect self-efficacy motivation. Based on the above literature review and theoretical framework, the hypotheses for the study are developed. The hypotheses are:

- H1: there is a significant relationship between personal values and entrepreneurial orientation
- H2: there is a significant relationship between self efficacy and entrepreneurial orientation
- H3: self-efficacy mediates the relationship between personal values and entrepreneurial orientation

### 3. Methods

A cross-sectional research design was used to examine the relationships between personal values, self-efficacy motivation, and entrepreneurial orientation among the small scale Malay owner managers of SMEs. The target population was Malay owner managers of SMEs in manufacturing industry (only SMEs of the West Coast of Malaysia) that have been in business between 5 to 10 years and have employees of 5 to 50. Since this study requires feedback from business owners of SMEs as to what they believe and perceive, it concentrates on the individual level. Therefore, the unit of analysis is individual owner of small scale Malay SMEs in the manufacturing industry. This study looks at the data gathered from each individual and treats each owner's response as an individual data source. This study employs the systematic sampling method. This method is chosen as the sampling frame is large and the listing of small scale SMEs that have been in business from 5 to 10 years is conveniently available. This sampling procedure offers the advantage of ease and quickness in developing the sample. The MARA mailing lists are the sampling frame and one of every two owner managers is selected as the sample. For this research, the size, the age of firm, and the industry were the controlled variables so that the relationship between personal values, internal motivation and entrepreneurial orientation can be effectively examined (Rauch and Frese, 2007). H1 and H2 were tested employing hierarchical regression analysis. This statistical technique was chosen because this study involved studying a single metric dependent variable which is presumed to be related to one or more metric independent variable (Hair et al., 2010). Rasch Model was employed to investigate the psychometric properties of the utilized instrument for determining scale dimensionality, construct validity, endorsibility, and estimation of items and person reliability.

#### 3.1. Measurement

For the Religious values, the study used bushido and Islamic values of honor, courage, loyalty, hard work, discipline which identified by Junid (2010), self constructed. In order to ensure the validity of the content, a thorough process of test retest of the items constructed were employed. Questions ask respondents to indicate the degree of importance of the values to their life and business. They have to circle a '1' if the value is opposed to their values, a '2' if it is not important, a '3' if it is not relevant, a '4' if it important and a '5' if it is very important to them. The items were analyzed using Rasch Measurement Model to ensure the reliability and validity of the construct. The Cronbach alpha ( $\alpha$ ) was at 0.95 indicating good reliability and excellence in showing the level of consistency (George & Mallery, 2003; Marino & Stuart, 2005). The person reliability index was at 0.97, indicating excellent reliability of a target group (Fisher, 2007). This denotes that the respondents were consistent in their response. This also means the instrument can distinguish between person ability and item difficulty of the religious values. The person separation index was at 3.93, showing the spread of persons along a range and item separation index at 5.66 which is 'excellent' separation index, indicating a larger range of items than persons, and a broader range of item difficulty. The unidimensionality test which was identified by the value of variance explained by measure which was 53% indicating good items that measure what they intended to measure.

For the internal motivation, self-efficacy variable, Chen et al.'s (2004) instrument was adapted. All questions were understood by the SMEs interviewed. There are 22 items which will be measured in 5 point-likert scale. The questions ask the respondent to rate the degree of surety in performing well each of the roles and tasks listed in the questionnaire. For entrepreneurial orientations variable, the instrument was adopted from Lumpkin and Dess (1996). The dimensions are: proactive, risk taking, innovative, autonomy with a total of 12-item scale ranging from 1 (Strongly Agree) to 5 (Strongly Disagree). The competitive aggressiveness dimension is dropped from the list because as indicated by Okhomiha (2010), competitive aggressiveness is found to be similar to proactiveness (proactive actions reflect SMEs competitive behaviors (Schumpeter, 1950 as in Okhomiha, 2010). The questions ask the respondents to rate the degree of agreement on the statement related to entrepreneurial orientation that best describe their reaction. All together, there were 110 items in the questionnaire. These two constructs were also analyzed using Rasch Measurement Model. As expected both construct's cronbach alpha ( $\alpha$ ) were at 0.94 and 0.95 respectively. This also confirms the reliability of the constructs that have been employed

by previous research (Chen et al., 2004; Lampkin & Erdogan, 2004).

#### 4. Results and analysis

The results are demonstrated into two parts: the descriptive analysis (demographic profile) and the hypothesis analysis. The following are the description of the analysis.

##### 4.1. Demographic profile

Out of 900 questionnaires distributed, only 162 were able to be collected. Majority of respondents were females who made up more than half of the sample group. The samples were mostly having secondary level of education. 67.3 percent of the respondents have been in business for five to six years. Majority of them have employees between 5 to 9.

The firm age and firm size were treated as control variables so that the relationships between PV, SE, and EO were not biased (Rausch and Frese, 2007; Field, 2010). The regression analysis between these control variables on entrepreneurial orientations shows that these variables have no significant relationship with EO indicating that they did not influence EO.

Table 1 is the descriptive statistics for each variable. The high mean score for each variable shows that the respondents hold high values of bushido, they are quite entrepreneurial and have high self efficacy. The small value of SD reflects the small deviation of the mean score from the actual score. This shows the data is good to proceed with hypothetical analysis.

Table 1. Descriptive Statistics for each variable

	Mean	SD
SE	4.0013	.49663
EO	3.6595	.69761
RV	4.2226	.48389

Table 2 shows the results of Pearson correlation analysis. The correlation coefficients for the relationship between the independent variable (**religious** values) and the mediating variable (self-efficacy) and the dependent variable (entrepreneurial orientation) were less than .70, indicating that the data were not affected by collinearity problems (Hair et al., 2010). The measurement scales that had validity and reliability were used to test the research hypotheses.

Table 2. Pearson Correlations Analysis

		SE	EO	PV
SE	Pearson Correlation	1		
EO	Pearson Correlation	.388(**)	1	
RV	Pearson Correlation	.547(**)	.301(**)	1

\*\* Correlation is significant at the 0.01 level (2-tailed).

##### 4.3 Hypothesis results

In this regression analysis, standardized coefficients (standardized beta) were used for all the analyses. For the mediating test, Baron and Kenny's approach was employed. As shown in Figure 1, the relationship identified as 'a' must be significant. Firstly, relationship 'a' was tested using regression analysis. Table 3 indicated the significant relationship exists between RV and SE [(b=.616 (RV),  $p < .001$ )]. Next, the relationships of 'b' (SE-EO) and 'c' (RV-EO) are then tested using the test of mediation applying Baron and Kenny's method. The results are shown in Table 4.

Table 3. Regression between RV and SE (relationship 'a')

Model		B	SE B	$\beta$	F
1	<u>Step 1</u>				
	Constant	.795	.151		
	Religious values	.616	.061	.621**	100.44**

a Predictors: (Constant), SE ;  $R^2 = .386$ ; \*\* $p < .001$

Table 4 shows two important results of testing mediating model in step 3. Firstly, the relationship between RV and EO; SE and EO are significantly correlated with entrepreneurial orientation ( $b = .398$  (RV),  $p < .001$ ;  $b = .459$  (SE),  $p < .001$ ); hence H1 and H2 were supported. As shown in step 3, (after the inclusion of SE), the previous significant result changed to non-significant ( $b = .164$ ,  $p > .001$ ). In terms of explanatory power, the inclusion of SE in step 3 had explained percent of the variance in the dependent variable. This result sends a signal that SE acts as a mediating effect in the relationship between RV and EO.

Table 4. The regression results: Test of mediation

Variables	Entrepreneurial orientations (EO) (dependent )		
<u>Independent</u>	Step 1	Step 2	Step 3
Rel values (RV)	.398**		.164
<u>Mediator</u>			
Self efficacy (SE)		.459**	.334**
R Square	.158**	.210**	.242**
Adjusted R Square	.153	.205	.222
F	30.136	42.597	12.506

Note: significance at \*\* $p < 0.001$

## 5. Discussion

All the hypotheses examined in this study have supported the assumption that self-efficacy mediates the relationship between religious values and entrepreneurial orientations. These findings are consistent with the findings of previous studies (Boyd & Vozikis, 1994; Zhao et al., 2005; Rauch & Frese, 2007). Even though their studies were looking at the relationship between entrepreneurial intentions and the likelihood that those intentions would result in entrepreneurial actions, the mediating role of self-efficacy on this relationship shows that self-efficacy is also important to entrepreneurs as it could initiate positive actions.

From the literature, an overall finding from most studies that examined the direct impacts of self-efficacy on either entrepreneurial orientation or formation of entrepreneurial firms concluded that individuals with higher self-efficacy have higher entrepreneurial orientations. The findings of this present study were convincing enough to conclude the same. The findings revealed that self-efficacy has great influence on entrepreneurial orientations of Malay SMEs in the manufacturing industry. This influence has introduced a new model of entrepreneurship.

The present study also indicates that the Malay SMEs in Malaysia are having good values, confident and entrepreneurial. This is shown in the higher mean score of all the three variables religious values, self efficacy and entrepreneurial orientations. A possible interpretation could be that the individuals who are having courage (including honesty) and discipline have high self efficacy to be innovative and risk taker. However, does this remain true in whichever conditions or environment surrounding them? This has yet to be uncovered in future research. Therefore, in future research, it is good if this relationship is studied under different environment so that we can see whether the impact of self efficacy on entrepreneurial orientation will remain the same under different environment.

## 6. Limitations of the study and future research

Among the limitations that were committed are the time and situational constraints, where the respondents were from the West Coast of Malaysia. Malay SMEs from the East Coast of Malaysia might have different values and self efficacy. A wider geographical area would have been preferable for generalizing the results to the



overall population. Nevertheless, the response rate for this study was not encouraging enough and this could be the basis for the future research.

Finally, the small sample size might not be substantive enough for this kind of behavioral research. Moreover, all the respondents are Malays; hence the results of this study cannot be generalized to the entire Malaysian population.

Future research to verify the results of this study could be conducted through more empirical cross-cultural and cross-country studies. In addition, attempts to investigate similarities and distinguishing characteristics of SMEs from various nationalities, industries and sizes could also be done in future research. Moreover, those studies could also be based on broader set of cultural values. Potentially a cross-cultural study investigating differences between Malays and non-Malays could provide additional insights in terms of motivation and entrepreneurial orientations. Potential correlations between some of the independent variables (e.g. gender, race, education, religion) are other implications that could also be revealed from future research.

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